



Original Research Article

Utilization of Delivery and Postnatal Care: A Comparative Cross-Sectional Study

Mohima Benojir Hoque

Department of Public Health ASA University Bangladesh (ASAUB) Dhaka, Bangladesh.

Received: 01/07/2015

Revised: 27/07/2015

Accepted: 03/08/2015

ABSTRACT

Objective: To compare the utilization of delivery and postnatal care among micro health insurance recipients and non-recipients.

Materials and Methods: This comparative cross sectional study was carried out among 230 micro health insurance (MHI) recipients and 223 MHI non-recipients. The cases were selected from Keraniganj where SAJIDA Foundations micro health insurance program exist. The comparison group was selected from Basila where any form of micro health insurance did not exist. The study was conducted within one year period. A purposive sampling technique was employed to select the sample. A pre-tested structured questionnaire was used as a data collection tool. Data were collected through face to face interview.

Findings: In program area 45.7%) respondents had primary level education, whereas in comparison area 46.2%) respondents were illiterate. In program area 20% of the respondents used institution (Hospital/ Clinic) for their last delivery, whereas in comparison area it was 12%. In program area 20% of the total deliveries were assisted by the doctors, 15.7% skilled birth attendants and the counterpart were 11.7% and 6.3. Statistically significant ($p < 0.001$, $df = 1$) association was found in terms of vitamin A supplementation, special cord care and Kangaroo care.

Conclusion: Apparently the status of utilization of delivery and postnatal care was better among the respondents of micro health recipients than that of non – recipients. Both the group needs special attention regarding utilization of different indicators of delivery and postnatal care.

Key Words: Utilization, Delivery Care, Postnatal Care and Micro Health Insurance.

INTRODUCTION

Women in Bangladesh are relatively disadvantaged in terms of their economic, social and health conditions compared to many other developing countries. [1] According to the 2001 data, only 48% of all pregnant women receive ante-natal care, and only 24% received post natal care among which only 9% is from a qualified provider. Among births which take place at home (90.8% births) 74.4% births are attended by

untrained birth attendants, relatives and friends. [2] The state of maternal health in a nation can be characterized by numerous factors, such as outcome measures like maternal mortality and morbidity rates or maternal nutrition status etc. These indicators include: The levels of antenatal and postnatal care, contraceptive prevalence rate (CPR), coverage of tetanus toxoid (TT) vaccination, proportion of deliveries conducted in health facilities by trained birth

attendants or proportion of unwanted pregnancies. But according to many of these measures, the maternal health situation in Bangladesh appears to be poor. ^[1] Maternal mortality rate of Bangladesh remains at an unacceptably high level, even though the country has a relatively strong national policy regarding maternal health care. Considering that maternal mortality figures vary widely by source and are greatly controversial, estimates for Bangladesh suggest that approximately 25,800 women and girls still die each year from complications related to pregnancy. Additionally, each year another 516,000 to 774,000 Bangladeshi women and girls suffer from disabilities caused by complications of pregnancy and childbirth. There is evidence that economic dependence, especially multinational corporate investment has a detrimental effect on maternal mortality that is mediated by its harmful impacts on economic growth and the status of women. ^[3] The reduction of maternal mortality has been selected as an indicator of development of a country in the Millennium Development Goals which set the target to reduce the maternal mortality ratio by three-quarters, between 1990 and 2015. To achieve this Bangladesh must reduce the maternal mortality ratio (MMR) from 5.74 in 1990 to 1.43 in 2015. The MMR and rate of childbirth by skilled attendants have been selected as the principal indicators of the maternal health situation. From the human rights point of view, maternal mortality seriously hampers a woman's right to life and health. The impact of morbidity resulting from childbirth related complication has further devastating effect on a woman's marital, social and personal life. ^[4] A health care system aiming to reduce morbidity and mortality related to pregnancy must focus on maternal and newborn health. The health care that a woman receives during pregnancy, at the

time of delivery, and soon after delivery is important for the survival and well-being of both the mother and the child. Bangladesh has committed to the Millennium Development Goals (MDGs) and has developed various policies and strategies for improving maternal and newborn health. The MDG aims to reduce maternal mortality by 75 percent by the year 2015. ^[5,6] Health is an intrinsic human right as well as a central input to poverty reduction and socio-economic development. Micro insurance for health is one method to address unmet health needs. It is also an emerging sector, strongly linked to the micro credit movement in Bangladesh. ^[7] Micro health insurance scheme offering both curative and preventive healthcare and health promotion services may increase the health status of the participating household via increased health awareness, improved health practices and increased utilization of formal health care. ^[8] Women are the primary and target market for micro- insurance for health. In most cases in Bangladesh, household medical services covered by insurance are accessed through female card-holders. In the case of facilities established by the micro-insurance schemes for health, clinics are largely run by women and women are trained as professional health workers to service the majority of female client. Through micro-insurance facilities for health and low or no-cost services, women are able to independently access health services without assistance from male family members either for funding or transportation. Women can go to a local clinic and use an insurance card to receive health services. ^[7-9] But the woman's memberships in a microcredit/ micro finance have been found to yield positive effects on their health seeking behaviors in Bangladesh. Because, traditional health insurance markets are almost entirely absent in the rural areas of Bangladesh. There is no social health insurance scheme even in the

formal sector in Bangladesh, and the government has not been able to meet the health care needs of the rural poor despite having a well-established health care delivery network. [8,9] At present one million people are now covered in some form of MHI in Bangladesh and the schemes can cover one-third of population of their catchment area. Most of the clients of MHI are members of Microcredit institutions who mainly operate the schemes. All the schemes provide out-patients services such as limited curative care, ANC, PNC, annual health check-ups, etc., along with dispensation of medicines and pathological services. The provision of medicines and pathology varies from scheme to scheme in terms of number and types depending on premium and pricing structure for services. Despite premium, all the schemes have provisions for co-payment for individual use. All the MHIs are performing dual roles in Bangladesh; in one hand they are insurer, on the other hand, they are service providers. [9] Most of NGOs under micro health insurance scheme have their own health care facilities which also play an important role on the health status of their clients. Study shows that microcredit can help protect poor women against exclusion to health care and also promoting their mental health. [8] The health insurance scheme of SAJIDA Foundation has been designed to include basic service elements of free general consultation and treatment, selected antenatal, delivery and postnatal care, simple preventive and curative care including drugs, low-cost pathology and other investigation. Assisted normal deliveries and surgical deliveries are also included. Individual family members, especially women, make premium payments for policies that cover the whole family including reproductive health state. [10,11]

So, MHI may lead to improved maternal health that means maternal general

health status, antenatal care, institutional delivery and postnatal care. Maternal mortality and morbidity can be reduced, if improved maternal health status is ensured. It also leads to higher productivity and reduce health care expenditure. Health care expenditure reduces because improved health status lead to reduce both direct and indirect health expenditures by reducing health care utilization. And they may maintain health care expenditure from their regular income and savings.

MATERIALS AND METHODS

This comparative cross sectional study was carried out among micro health insurance recipients and non-recipients. The cases were selected from Keraniganj where SAJIDA Foundations micro health insurance program exist. The comparison group was selected from Basila where any form of micro health insurance was not exist. But the respondents from both the areas were supposed to have same socio-demographic status. The study was conducted within one year period. The study population consisted of all women members of SAJIDA Foundation with HELP (Health, Education and Life Program) card and the women of Basila were in comparison group. A purposive sampling technique was employed to select the sample. Data were collected from 230 micro health insurance recipients and 223 non-recipients. A pre-tested structured questionnaire was used as a data collection tool. Data were collected through face to face interview. Data were processed and analyzed by using SPSS 16 version.

RESULTS

A total of 230 micro health insurance (MHI) recipients were selected from the member list of SJIDA Foundation and 223 MHI non-recipients were from Basila area. The mean age of the MHI recipients was 28.1 ± 5.7 and that of non-recipients was

24.8 ± 4.9. In program area the higher percentage of (45.7%) respondents had primary level education, whereas in comparison area the higher percentage (46.2%) of respondents was illiterate (Table 1). Statistically significant (P< 0.001 at t = 11.43) difference was observed between MHI recipients and non-recipients in terms of income and expenditure (Table 2).

Utilization of delivery care was not similar in both the areas. In program area 20% of the respondents used institution (Hospital/ Clinic) for their last delivery, whereas in comparison area it was 12%. Differences also observed in terms of delivery procedures (Table 3).

Proportion of utilization postnatal care also higher among the respondents of micro health insurance recipients than that of non-recipients. Statistically significant (p<0.001, df = 1) association was found in

terms of vitamin A supplementation, special cord care and Kangaroo care (Table 4 & 5).

Table 1 Distribution of the respondents according to their socio-demographic characteristics

Variables	MHI recipients (n = 230)	MHI non-recipients (n = 223)
Age (years)		
15 – 19	3(1.3)	21 (9.4)
20 – 24	56(24.3)	84 (37.7)
25 - 29	83(36.1)	75(33.6)
30 – 34	53(23.0)	29(13.1)
35 – 39	21(9.1)	10(4.5)
40 – 44	11(4.8)	3(1.3)
45+	3(1.3)	1(0.4)
Mean ±SD (years)	28.08 ± 5.7	24.75 (± 4.9)
Education level		
Illiterate	67 (29.1)	103 (46.2)
Primary (I-V)	105 (45.7)	91 (40.8)
Secondary and Higher	58 (25.2)	25 (11.2)
Family type		
Nuclear	183 (79.6)	203 (91.2)
Joint	18 (7.8)	20 (8.8)
Extended	29 (12.6)	0 (0.0)
Family size		
0-2	4 (1.7)	13 (5.8)
3-5	175 (76.1)	183 (82.1)
5+	51 (22.2)	27 (12.1)

Table 2 Distribution of the respondents according to their income and expenditure

Variables	MHI recipients (n = 230)	MHI non-recipients (n = 223)	Significance
Income (Tk.)			
Up to 5000	6 (2.6)	72 (35.3)	t = 8.94, p = 0.001
5001 - 10000	97 (42.2)	117 (57.4)	
10001 - 15001	62 (27.0)	12 (5.9)	
15000+	65 (28.3)	3 (1.5)	
Mean ± SD	14489.13 ± 12641.17	6814.35 ± 3010.13	
Expenditure (Tk.)			
Upto 5000	15 (6.5)	88 (43.1)	t = 11.43, p = 0.001
5001 - 10000	133 (57.8)	109 (53.4)	
10001 - 15001	51 (22.2)	5 (2.5)	
15000+	31 (13.5)	2 (1.0)	
Mean ± SD (Tk.)	10725.65 ± 5262.88	6242.15 ± 2721.22	

Table 3: Distribution of the respondents according to place and procedures of their last delivery

Variables	MHI recipients (n = 230)	MHI non-recipients (n = 223)	P-value, χ^2 , df
Place of last delivery			
Home	174 (75.7)	164 (73.5)	0.001 (110.27, 4)
Institution	46 (20)	28 (12.5)	
Procedure of last delivery			
Normal	189 (82.2)	180 (80.7)	0.069 (7.09, 3)
Caesarean and others	31 (13.5)	12 (5.3)	
PNC visit during last pregnancy			
Less than 3	73 (31.7)	51 (22.9)	0.003(11.554, 2)
3 or more	21 (9.1)	13 (5.8)	
Don't know	18 (7.8)	0 (0)	

Table 4 Distribution of the respondents according to utilization of postnatal care

Variables	MHI recipients (n = 230)	MHI non-recipients (n = 223)	P-value, χ^2 , df
Vitamin A supplement after delivery			
Yes	147 (63.9)	77 (34.5)	0.001 (29.41, 1)
No	73 (31.7)	115 (51.6)	
Colostrum feeding			
Yes	197 (85.7)	169 (75.8)	0.641 (0.24, 1)
No	23 (10.0)	23 (10.3)	
Special cord care of newborn			
Yes	210 (91.3)	155 (69.5)	0.001 (21.99, 1)
No	10 (4.3)	44 (16.6)	
Wrapping of newborn			
Yes	219 (95.2)	184 (82.5)	0.014 (6.61, 1)
No	1 (0.4)	8 (3.6)	
Kangaroo care of newborn			
Yes	203 (88.3)	108 (48.4)	0.001 (71.89, 1)
No	17 (7.4)	84 (37.7)	
Weighed within 3 days			
Yes	180 (78.3)	70 (31.4)	0.001 (88.41, 1)
No	40 (17.4)	122 (54.7)	

Table 5 Distribution of respondents according to association between MHI and delivery & postnatal care utilization

Variables	MHI recipients	MHI non-recipients	p-value (χ^2 , df)
Delivery care			
Trained provider	129	151	0.001 (18.362, 1)
Non-trained provider	90	41	
PNC practice			
Less than 3 visits	73 (65.2)	51 (79.7)	0.042 (4.119, 1)
3 or More visits	39 (34.8)	13 (20.3)	

In program area 20% of the total deliveries were assisted by the doctors, 15.7% skilled birth attendants and the counterpart were 11.7% and 6.3. (Figure 1)

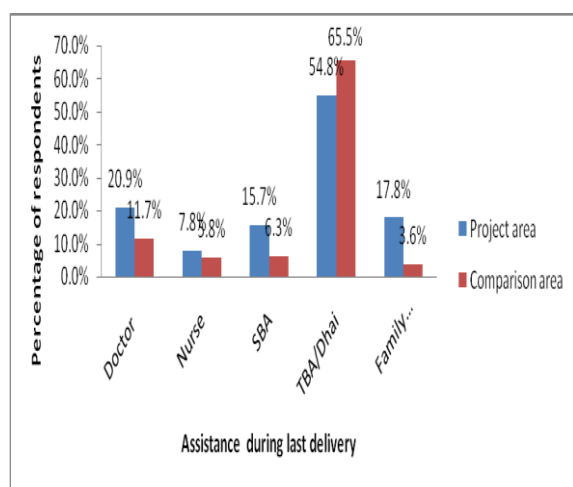


Figure 1 Assistance during last delivery

government hospitals and it was 18.8% in comparison area (Figure 2).

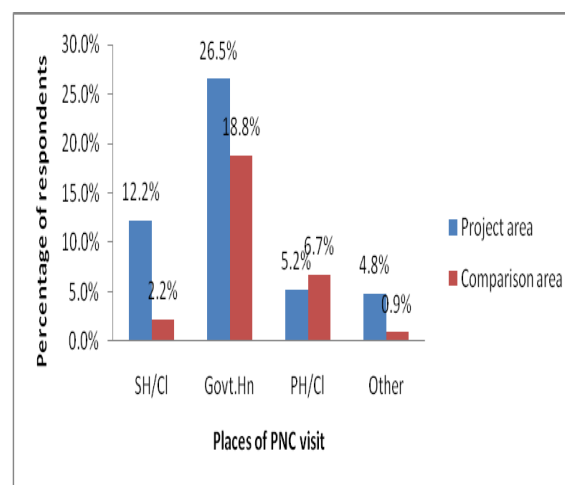


Figure 2 Place of Postnatal care visit

Proportion and place of postnatal care visit was not similar in both the areas. Among the total respondents of program area 26.5% were received postnatal care from

DISCUSSION

The present study was carried out to compare the utilization of delivery and postnatal care among micro health insurance recipients and non-recipients. The mean age of the MHI recipients was 28.1 ± 5.7 and

that of non-recipients was 24.8 ± 4.9 . Age range of the respondents correspondent with the other studies conducted among the same population. [12,13] Proportion of the utilization of delivery and postnatal care was higher among the micro health insurance recipients and that of non-recipients. For example delivery assisted by doctors was 20% among the respondents of MHI recipients. A study in Philippine shows that insured person reported higher hospitalization rates, higher rates of professionally attended deliveries, lower rate of delivery at home and alleviate under utilization of health care. [14] Statistically significant ($p < 0.001$, $df = 1$) association was found in terms of vitamin A supplementation, special cod care and Kangaroo care. In rural Senegal the members of a health insurance scheme have a higher probability of using hospitalization services than that of non-members and pay substantially less when they need care. [15] Another study shows that micro health insurance placement contributes to increasing awareness of important health problems and to the probability of seeking formal care. [8]

CONCLUSION

The present study was carried out to compare the utilization of delivery and postnatal care among micro health insurance recipients. Apparently the status of utilization of delivery and postnatal care was better among the respondents of micro health recipients than that of MHI non-recipients. Higher proportion of MHI recipients were utilizes some indicators of delivery and postnatal care. But situation was not favourable in terms of overall utilization of all the indicators among both the group. In the program area steps should be taken to improve more the status of utilization of delivery and postnatal care. Also the non-program area needs special

attention to improve the status of delivery and postnatal care.

ACKNOWLEDGEMENTS

NOMA grant, Oslo, Norway is acknowledged with thanks and gratitude for providing financial support for the work. And we are very grateful to Dr. Shamsheer Ali Khan, Advisor of SAJIDA Foundation for his whole hearted support to conduct the study on there.

REFERENCES

1. Rahman SA, Parkhurst JO, Normand C. Health Systems Development Programme: Maternal Health Review Bangladesh. Policy Research Unit (PRU); Ministry of Health and Family Welfare Government of Peoples Republic of Bangladesh. HSD/WP/02/03.
2. UNICEF. Health-Maternal Health. Retrieved in March 2010 from :(http://www.unicef.org/health/index_maternal-health.html, accessed 10 December 2011)
3. National Institute of Population Research and Training (NIPORT), ORC Macro, Johns Hopkins University, ICDDR, B. Bangladesh maternal health services and maternal mortality survey 2001. Dhaka, Bangladesh and Calverton, MD: NIPORT, ORC Macro, Johns Hopkins University, and ICDDR, B, 2003.
4. Maternal Health Scenario in Bangladesh: The Policy Context; Naripokkho, 2006. Available from www.humanrightsimpact.org/.../hria.../Report_of_HeRWAI_Naripokkho.pdf
5. National Institute of Population Research and Training (NIPORT), Mitra and Associates, and Measure DHS. Bangladesh Demographic and Health Survey 2007 Preliminary Report. Dhaka, Bangladesh and Calverton, Maryland [USA]: National Institute of Population Research and Training, Mitra and Associates, and Measure DHS, 2007.

6. Bangladesh Bureau of Statistics (BBS), Statistic Division, Ministry of Planning; Government of the People's Republic of Bangladesh; 2006.
7. Werner, J. W. Micro-insurance in Bangladesh: Risk Protection for the Poor? *Journal of Health Population and Nutrition* 2009; 27: (4), 563-573.
8. Hamid, A. S., Robert, J., Mosley, P., Evaluating the Health Effects of Micro Health Insurance Placement: Evidence from Bangladesh. *World Development*, 2011; 39 (3):399-411.
9. Ahmed, U. M., Islam, S. K., Quashem, M. A., & Ahmed, N. Health Microinsurance: A Comparative Study of Three Examples in Bangladesh. CGAP Working Group on Micro insurance Good and Bad Practices Case Study No. 13, 2005. Available from: <http://www.cgap.org>.
10. Kabir. F., Khan. S. A., Annual Report of SJIDA Foundation; 2009.
11. Dona.M., Evaluation of SJIDA'S HELP program, 2009.
12. Chowdhury S, Hossain SA, Halim A. Assessment of quality of care in maternal and newborn health services available in public health care facilities in Bangladesh. *Bangladesh Med Res Counc Bull* 2009; 35:53-56.
13. Barnett S, Azad K, Barua S, Mridha M, Abrar M, Rego A, et al. Maternal and Newborn-care Practices during Pregnancy, Childbirth, and the Postnatal Period: A Comparison in Three Rural Districts in Bangladesh. *J Health Popul Nutr* 2006; 24(4):394-402.
14. Dror DM, Soriano, S.E. Lorenzo, M. E., Lorenzo, J. N. & Koren, R., Field based evidence of enhanced healthcare utilization among persons insured by micro health insurance units in Philippines. *Health Policy*, 2005; 73: 263-271.
15. Johanne P, Jutting. Community – based Health Insurance Schemes Improve Poor People's Access to Health Care: Evidence from Rural Senegal. *World Development*, 2004; 32: 2.

How to cite this article: Hoque MB. Utilization of delivery and postnatal care: a comparative cross-sectional study. *Int J Health Sci Res.* 2015; 5(9):396-402.

International Journal of Health Sciences & Research (IJHSR)

Publish your work in this journal

The International Journal of Health Sciences & Research is a multidisciplinary indexed open access double-blind peer-reviewed international journal that publishes original research articles from all areas of health sciences and allied branches. This monthly journal is characterised by rapid publication of reviews, original research and case reports across all the fields of health sciences. The details of journal are available on its official website (www.ijhsr.org).

Submit your manuscript by email: editor.ijhsr@gmail.com OR editor.ijhsr@yahoo.com